STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0123277; AI153413; PER20070001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. **THE APPLICANT IS:** Wastewater Treatment Utilities, Inc.
Orange Grove Wastewater Treatment Facility
17188 Airline Hwy., Suite M-157
Prairieville, LA 70769

II. **PREPARED BY:** Angela Marse

DATE PREPARED: June 9, 2009

III. **PERMIT ACTION:** Issue LPDES permit LA0123277, AI153413; PER20080001

LPDES application received: September 19, 2007

LPDES permit issued: none issued

IV. FACILITY INFORMATION:

A. The application is for the discharge of treated sanitary wastewater from a proposed privately owned treatment works serving the Orange Grove Subdivision and school.

B. The permit application does not indicate the receipt of industrial wastewater.

C. The facility is located on Hwy. 22, approximately 1/2 mile west of Hwy. 70 in Sorrento, Ascension Parish.

D. The treatment facility consists of an extended aeration plant. Disinfection is by chlorination.

E. Outfall 001

Discharge Location: Latitude 30° 9' 28" North
Longitude 90° 53' 11" West

Description: treated sanitary wastewater

Expected flow: 0.154 MGD

Please note that if the facility grows to a discharge beyond the design capacity of the facility, additional sewage treatment may be required with prior approval of the facility's plan by the Louisiana Department of Health and Hospitals and notification must be submitted to the LDEQ. Also, if the expected flow reaches or exceeds the design capacity of the facility, a permit modification may be required.

Type of Flow Measurement which the facility is required to use: Continuous Recorder

V. RECEIVING WATERS:

The discharge is into a parish drainage ditch, thence into the Panama Canal, thence into Bayou Conway, thence into Blind River in segment 040403 of the Lake Ponchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 040403 of the Lake Ponchartrain Basin are as indicated in the table below[1/]:

Overall Degree of Support for Segment 040403	**Degree of Support of Each Use**						
Partial	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Full	Full	Not Supported	Not Supported	N/A	N/A	N/A

[1/]The designated uses and degree of support for Segment 040403 of the Lake Ponchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

Section 303 (d) of the Clean Water Act as amended by the Water Quality Act of 1987, and EPA's regulations at 40 CFR 130 require that each state identify those waters within its boundaries not meeting water quality standards. The Clean Water Act further requires states to implement plans to address impairments. LDEQ is developing Total Maximum Daily Loadings Studies (TMDLs) to address impaired waterbodies. Segment 040403 of the Lake Pontchartrain Basin is on the 2006 Integrated 303(d) List of Impaired Waterbodies. The suspected causes of impairment are mercury, nitrate/nitrite, dissolved oxygen, phosphorus, sedimentation, turbidity, and non-native aquatic plants. To date no TMDLs have been completed for this waterbody.

Until completion of the TMDLs for the Lake Pontchartrain Basin, suspected causes of impairment which are not directly attributed to sanitary wastewater point sources have been eliminated in the formulation of effluent limitations and other requirements of this permit. This includes sedimentation, turbidity, and non-native aquatic plants. This determination is made through best professional judgement based upon EPA's determination of patterns in the incidence of pollutants present in sanitary wastewater as per EPA's Proposed Rule of December 6, 1995.

Suspected causes of concern remaining after the elimination process are addressed in a manner consistent with the Department's permitting guidance for implementing Louisiana's surface water quality standards as follows:

Dissolved oxygen
Biochemical oxygen demand (or BOD) is the amount of oxygen required by bacteria to oxidize biological degradable material (normally organic matter) found in wastewater, effluents, and polluted waters. The test measures the amount of oxygen consumed by a sample by naturally occurring bacteria over a five-day period. Therefore, to protect against potential discharges resulting in DO levels below that of state water quality standards for the receiving waterbody, BOD_5 limits have been placed in the permit. Monitoring for biological oxygen demand is the best indicator by which to measure the potential discharge of oxygen consuming pollutants at levels that will result in dissolved oxygen below that of state water quality standards.

Ammonia and nutrients
Nitrate/nitrite and phosphorus are considered nutrients. Nutrients can result in the consumption of dissolved oxygen in the receiving stream making it less available for aquatic life. This Office utilizes ammonia nitrogen as an indicator by which to monitor for the potential presence of nutrients remaining in a waste stream after the treatment process. Because of the size of the facility and considerable distance to Blind River, the impaired waterbody, this Office has not proposed effluent limits for ammonia nitrogen. Furthermore, when LDEQ maintains and protects DO, the LDEQ is in effect also limiting and controlling nutrient concentrations and impacts. (LDEQ declaratory ruling April 29, 1996) LDEQ's position, as supported by the ruling in the lawsuit regarding water quality criteria for nutrients (Sierra Club v. Givens, 710 So.2d 249 (La. App. 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998), is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. A BOD_5 limit is included in the permit to protect against DO levels below state water quality standards. A reopener clause has been included in the permit should the TMDL determine an ammonia nitrogen limit is necessary.

Mercury
The source of mercury has been identified as atmospheric deposition. The discharge is not directly into the mercury impaired waterbody and the facility will serve residential customers in the nearby area. Therefore, no limit or mercury prevention program plan has been included in the draft permit. Should the TMDL for mercury determine a mercury effluent limitation is necessary; a reopener clause has been included in the draft permit.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 040403 of the Lake Ponchartrain Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the *West Indian Manatee*, which is listed as a threatened/endangered species. This draft permit has been sent to the FWS for review. As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and after consultation with FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse affect upon the *West Indian Manatee* since effluent limitations are established in the permit to ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from a new facility. In accordance with the 'Memorandum of Understanding for the Protection of Historic Places in Louisiana Regarding LPDES Permits', consultation with the Louisiana State Historic Preservation Officer (SHPO) is required. The response dated October 24, 2007 indicated no known archaeological sites or historic properties will be affected by the facility.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation
Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mrs. Angela Marse
Water Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Final Effluent Limits:

OUTFALL 001

The facility is a new discharger into an impaired stream. As stated in Section V. Receiving Waters, DEQ is developing TMDLs to address impaired waterbodies of the Lake Pontchartrain Basin. TMDLs for the Lake Pontchartrain Basin are scheduled for completion in 2011. A reopener paragraph has been included in Part II of the permit should more stringent effluent limitations be required as a result of the study.

According to LDEQ's pre-TMDL permitting strategy, new sanitary discharges should be evaluated using an appropriate water quality simulation model. Alternatively, the facility can be permitted in a manner so as to prevent any impact on the impaired stream. In some cases this may be done by providing end-of-pipe water quality based effluent limitations or through an approved effluent trading program. However, in this case, the discharge must travel approximately 20 miles through parish drainage and Bayou Conway before entering Blind River, the impaired waterbody. Because of this significant distance and the size of the facility (0.154 MGD), no additional impacts on the impaired stream are expected from this discharge. Effluent limitations in the permit are based on the statewide effluent limitations policy.

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Daily Max.	Basis
BOD_5	13	10 mg/l	15 mg/l	Statewide Sanitary Effluent Limitations (SSELP) Policy.
TSS	19	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5., the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Daily Maximum) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.)

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0123277: Issued: none issued

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

This is a new facility. No inspections have been performed for this facility.

B) Compliance and/or Administrative Orders

A review of the files indicates the following most recent enforcement actions administered against this facility:

LDEQ Issuance:
Docket #: WE-CN-09-0306
Date Issued: January 6, 2010

This facility is listed on the compliance order but since it is a new facility there is no discharge.

Order:

1. This facility is required to obtain a final permit before they can start discharging.

C) DMR Review

There are no DMRs on file. This is a new facility.

XII. ADDITIONAL INFORMATION:

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(C) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act or more stringent discharge limitations and/or restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's, if the effluent standard, limitations, water quality studies or TMDL's so issued or approved:

a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

b) Controls any pollutant not limited in the permit; or

c) Requires reassessment due to change in 303(d) status of waterbody; or

d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the expected flow of 0.154 MGD.

Effluent loadings are calculated using the following example:

BOD: 8.34 lb/gal x 0.154 MGD x 10 mg/l = 13 lb/day

At present, the Monitoring Requirements, Sample Types, and Frequency of Sampling as shown in the permit are standard for facilities of flows between 0.1 and 0.5 MGD.

Effluent Characteristics	Monitoring Requirements	
	Measurement Frequency	Sample Type
Flow	Continuous	Recorder
BOD_5	2/month	Grab
Total Suspended Solids	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a new permit for the discharge described in this Statement of Basis.

XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 2006.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2008.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2008.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Wastewater Treatment Utilities, Inc., Orange Grove Wastewater Treatment Facility, September 19, 2007.